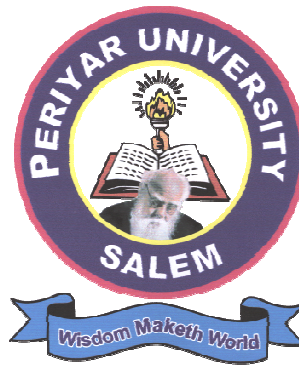


# **PERIYAR UNIVERSITY**

## **SALEM - 636 011**



## **M.Com., (CA)**

**(CHOICE BASED CREDIT SYSTEM)**

**REGULATIONS/SYLLABUS**  
**(EFFECTIVE FROM THE ACADEMIC YEAR 2008-2009 AND THEREAFTER)**

**REGULATIONS**

Candidates seeking admission to the first year of the Master of commerce/Master of Commerce (Computer Applications) Degree Course shall possess.

- a. B.Com (or)
- b. Any Degree with Financial Accounting and Cost Accounting/ Management Accounting /each with 100 Marks.

### **DURATION OF THE COURSE**

The course shall extend over a period of two Academic years consisting of four semesters. Each Academic year will be divided into two Semesters. The first Semester will consist of the period from July to November and the Second Semester from December to March.

The duration of each Semester will be about 18 weeks. The subjects of study shall be in accordance with the syllabus prescribed from time to time.

### **SUBJECTS OF STUDY**

The total number of subject of study will be 20 including one Project work for 100 marks.

The Project report must be submitted through the supervisor and the Head of the Department on or before 31<sup>st</sup> March of the Second Year.

### **EVALUATION**

The Students will be evaluated for 100 marks in each subject of study as detailed below:

External Examination - 75 marks

Internal Assessment - 25 marks

The components of Internal Assessment for 25 Marks are:

Test - 15 Marks

Seminar - 5 Marks

Assignments /Quiz - 5 Marks

Total - 25 Marks

Other details about evaluation are given in (CBCS Regulations).

**PASSING MINIMUM:**

1. Theory **Internal** 25 Marks, **External** 75 Marks.
2. Separate passing minimum is prescribed for Internal and External

The passing minimum for CIA shall be 50% out of 25 marks  
(i.e. 12.5 Marks).

The passing minimum for University Examination shall be 50% out of 75 (i.e. 37.5% Marks).

**CLASSIFICATION OF THE SUCCESSFUL CANDIDATES:**

Successful candidates passing the examinations and securing the Marks,

50% and above - Pass Second Class

60% and above - Pass First Class

Above 75% in the aggregate - I Class with distinction provided that they pass the examination in the first appearance.

Apart from the above classification 6-points scale is used for evaluation of the performance of the students to provide letter grade for each course under CBCS pattern.

The performance of a student in each course is evaluated in terms of Grade Point Average, Weighted Average Marks Cumulative Grade Point Average and Overall Weighted Percentage of Marks (OWPM). The computation of these values and grades are explained in CBCS Regulations.

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**SCHEME OF EXAMINATION  
M.Com (CA)**

**I – SEMESTER**

| <b>Code No</b> | <b>Title</b>   | <b>Duration</b> | <b>Internal Marks</b> | <b>External Marks</b> | <b>Total Marks</b> | <b>Credit</b> | <b>Total Credit</b> |
|----------------|--|-----------------|-----------------------|-----------------------|--------------------|---------------|---------------------|
| COM8CO1        | Modern Marketing   | 3 hrs           | 25                    | 75                    | 100                | 05            |                     |
| COM8CO2        | Advanced Financial Accounting  | 3 hrs           | 25                    | 75                    | 100                | 05            |                     |
| COM8CO3        | Business Environment   | 3 hrs           | 25                    | 75                    | 100                | 05            |                     |
| COMCA8EO1      | Programming in C++   | 3 hrs           | 25                    | 75                    | 100                | 04            |                     |
| COM8SO1        | Principles of Accountancy<br><br>(Supportive Paper for courses offered by other departments) | 3 hrs           | 25                    | 75                    | 100                | 2             |                     |
|                |  |                 |                       |                       |                    | <b>21</b>     | <b>21</b>           |

SUPPORTIVE PAPER:  
MAT8SO1

Numerical Methods and Statistics

**II - SEMESTER**

| <b>Code No</b> | <b>Title</b>  | <b>Duration</b> | <b>Internal Marks</b> | <b>External Marks</b> | <b>Total Marks</b> | <b>Credit</b> | <b>Total Credit</b> |
|----------------|---|-----------------|-----------------------|-----------------------|--------------------|---------------|---------------------|
| COM8C04        | Financial Management  | 3 hrs           | 25                    | 75                    | 100                | 05            |                     |
| COM8C05        | Business Research Methods and Techniques  | 3 hrs           | 25                    | 75                    | 100                | 05            |                     |
| COM8C06        | Advanced Corporate Accounting   | 3 hrs           | 25                    | 75                    | 100                | 05            |                     |
| COMCA8E02      | Programming in C++ Lab  | 3 hrs           | 25                    | 75                    | 100                | 04            |                     |
| COM8S02        | Human Resource Management(Supportive paper for courses offered by other Department) | 3 hrs           | 25                    | 75                    | 100                | 02            |                     |
| 06PHR01        | Human Rights (Common Paper)   | 3 hrs           | -                     | -                     | 100                | <b>02</b>     |                     |
|                |   |                 |                       |                       |                    | <b>23</b>     | <b>23</b>           |

### III - SEMESTER

| Code No   | Title                                      | Duration | Internal Marks | External Marks | Total Marks | Credit    | Total Credit |
|-----------|--|----------|----------------|----------------|-------------|-----------|--------------|
| COM8C07   | International Trade                        | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COM8C08   | Security Analysis and Portfolio Management | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COM8C09   | Accounting for Managerial Decision         | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COMCA8C10 | Database Management System                 | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COMCA8E03 | Visual Basic                               | 3 hrs    | 25             | 75             | 100         | 4         |              |
|           |  |          |                |                |             | <b>24</b> | <b>24</b>    |

### IV - SEMESTER

| Code No             | Title                      | Duration | Internal Marks | External Marks | Total Marks | Credit    | Total Credit |
|---------------------|----------------------------|----------|----------------|----------------|-------------|-----------|--------------|
| COM8C11             | Core Paper                 | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COM8C12             | Core Paper                 | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COM8C13             | Core Paper                 | 3 hrs    | 25             | 75             | 100         | 5         |              |
| COM8E04             | Elective Paper             | 3 hrs    | 25             | 75             | 100         | 4         |              |
| COM8C14             | Project work and Viva-Voce |          | 25             | 75             | 100         | 5         |              |
|                     |                            |          |                |                |             | <b>24</b> | <b>24</b>    |
| <b>Total Credit</b> |                            |          |                |                |             |           | <b>92</b>    |

## **COM8C01 - MODERN MARKETING**

### **Unit -I:**

Marketing Concepts - Objectives - Functions - Marketing Environment - Marketing Strategies, Modern Marketing Vs Traditional Marketing - Marketing Mix.

### **Unit -II**

Product -Product Life Cycle - Product Line - Product Mix - New Product Development - Product Positioning - Product Differentiation - Product Diversification -Product Modification - Branding and Packaging.

### **Unit -III**

Buyer Behaviour - Factors - Buyer Behaviour Theories - Buying Motives - Buyer Behaviour Models -Customer Satisfaction - Loyalty Mass Customization - Customer Grievance Redressal -Market Segmentation - Pricing -Channels of Distribution -Sales Promotion.

### **Unit -IV**

Marketing Information System - Marketing Research - Scope and Importance -Kinds - Research Design - Market Survey and Report Preparation.

### **Unit -V**

Emergence of Service Marketing - Service Marketing Mix - Banking and Financial Services, Insurance - Transportation - E-marketing - MLM.

### **Reference Books**

1. Ramasamy and Namakumari -Marketing Management
2. Rajan Saxena -Marketing Management
3. Philip Kotler -Principles of Marketing
4. Doyle -Marketing and Strategy
5. Stanton. Williams Jandcharies -Future Fundamentals of Marketing
6. Mamoria C.B -Marketing management
7. Sherlekar - Marketing management

## **COM8C02 - ADVANCED FINANCIAL ACCOUNTING**

### **Unit -I**

Accounting principles, Concepts and Conventions -Measurement of Business Income -Accounting Standards -National and International.

### **Unit -II**

Partnership Accounting - Assignment of Life Policy -Mergers and Amalgamation - Sale of Business - Dissolution - Insolvency - Piecemeal Distribution.

### **Unit -III -**

Double Accounts System -Accounts of Electricity Companies -Present Format.

### **Unit -IV**

Accounting for Price Level Changes -Social Responsibility Accounting -HR Accounting.

### **Unit -V**

Government Accounting in India: General Principles - Comparison with Commercial Accounting - Role of The Comptroller and Auditor General of India and Public Accounts Committee -Review of Accounts.

### **Reference Books**

1. Gupta R.K and Radhaswamy M Advanced Accounts, New Delhi, Sultan Chand.
2. Paul.S.K.R., Advanced Financial Accounting, Calcutta, New Central Book Agencies Pvt. Ltd.
3. Jain & Narang -Advanced Accountancy
4. Arulanandan & Raman - Advanced Accountancy
5. Maheswari S.N - Advanced Accountancy

## **COM8C03 - BUSINESS ENVIRONMENT**

### **Unit -I**

Nature, Scope and Social Aspects of Business Environment: Levels of Environment - Internal Environment - External Environment - Competitive Structure of Industries International Business Environment.

### **Unit -II**

Economic Environment - Monetary Policy - Physical Policy; Legal Environment - Laws relating to Business Environment -Industries (Development & Regulation) Act - M.R.T.P Act -FERA -FEMA.

### **Unit -III**

Social and cultural environment - Social Issues in Business: Business Ethics -Social Responsibility of Business - Environmental Issues - Labour Issues - Corporate Governance - Technological Environment.

### **Unit -IV**

New Economic Policy: Background to the New Economic Policy - Liberalization - Privatization and Globalization - Impact of Globalization in Indian Economy - EXIM Policy - Role of Government in Promoting Exports - ECGC - Export Trade Zones - Foreign Direct Investment - Limitations and Dangers of FDI.

### **Unit -V**

International Organizations: International Monetary Fund, World Bank, International Development Association - International Finance Corporation - Asian Development Bank, INCTAD, UNIDO, International Trade Centre, WTO, GATT.

### **References**

1. Aswathappa K - Essentials of Business Environment
2. Francis Cherunilam - Global Economy and Business Environment
3. Sankaran S- Business Environment.
4. Maheswari & Gupta - Government and Society
5. Indian Economy – Rather Dutt & Sundaram K.P



## **COMCA8E01 - PROGRAMMING IN C++**

### **Unit -I**

Principles of Object Oriented Programming - Basic Concepts and Benefits of OOP - Object Oriented Language - Application of OOP - Structure of C++ - Application of C++.

### **Unit -II**

Introduction to C++, Tokens, Keywords, Identifiers, Variables, Operators, Manipulators, Expressions and Control Structures in C++.

### **Unit -III**

Functions in C++ - Main Function - Function Prototyping - Call by Reference -Function Overloading - Friend and Virtual Functions - Return by Reference.

### **Unit -IV**

Classes and Object; Constructors and Destructors, Operator Overloading and Type Conversions.

### **Unit -V**

Inheritance: Single Inheritance - Multi Level Inheritance - Multiple Inheritance -Hierarchical Inheritance - Hybrid Inheritance - Pointers - Virtual Functions and Polymorphism Managing Consol Input/Output Operations.

### **References**

1. Balagurusamy -Object Oriented Programming with C++
2. Venugopal K.R., Rajkumar & Ravisankar T. - Mastering C++
3. Ravichandran D -Programming with C++.

**COM8S01 - PRINCIPLES OF ACCOUNTANCY**  
**(Supportive paper offered by other Departments)**

**Unit -I**

Accounting Principles, Concepts and Conventions - Nature and Scope of Book -Keeping.

**Unit -II**

Double Entry System of Book - Keeping - Rules of Debit and Credit - Ledgers -Posting - Subdivision of Journal - Petty Cash Book, Columnar Cash Book - Bank Reconciliation Statement

**Unit -III**

Trial Balance - Preparation of Trial Balance - Capital and Revenue - Expenditure and Receipts - Rectification of Errors.

**Unit -IV**

Final Account -Trading Account - Profit and Loss Account - Balance Sheet.

**Unit -V**

Financial Statement Analysis - Ratio Analysis: Current Ratio - Net Profit Ratio- Direct Expenses Ratio.

**Reference Books**

1. Gupta R.L and Gupta V.K Financial Accounting.
2. Reddy T.S. & Murthy A - Advanced Accountancy
3. Maheswari S.N., & Maheswari S.K -An Introduction to Advanced Accountancy
4. Maheswari S.N., Pillai & Bhagavathi – Management Accounting.

## **COM8 CO4 – FINANCIAL MANAGEMENT**

### **Unit I**

Financial Management – concept, nature, evolution, functions and significance  
– Risk return – Trade off – Maximization and Minimization Vs. Optimization.

### **Unit II**

Long Term Capital Resources: Equity and Debt sources – Uses – Significance of convertible issues and rights issues, working capital – Concept and types – Determinants – Financing approaches – Sources of Working Capital.

### **Unit III**

Capital structure planning: Determinants of capital structure – Optimum capital structure – Capital structure theories – Cost of capitals: Cost of debt equity, Preference share capital and Retained earning – Weighted average cost.

### **Unit IV**

Capital budgeting: Concept, Significance – Methods of Evolution of capital investment – Payback, average return, NPV, IRR, Decision Tree Simulation, Sensitivity and CAPM methods.

### **Unit V**

Dividend theories: Valuation, - Gordon, Walter and M.M. Theory – Assumptions and Limitations. Dividend policy: Different policies and practices – Factors affecting dividend decision.

**Note:** The question paper should consist of 60% theory and 40% problem.

### **Reference Books:**

1. Pandey. I.M., Financial Management, New Delhi, Vikas Publications.
2. Khan and Jain, Financial Management.
3. Soloman Ezra and Priyle John, An introduction to Financial Management.
4. Prasanna Chandra, Financial Management and policy.
5. James C Van Horne, Financial Management and policy.

## **COM8C05 – BUSINESS RESEARCH METHODS AND TECHNIQUES**

### **Unit I**

Meaning of Business Research – Types of Research – Descriptive, Exploratory, Experimental – Historic – Pure and Applied – Research problem – Research Design – Components of Research Design.

### **Unit II**

Sampling – Census – Universe / Population – Sample – Sampling Techniques- Random and Non Random Sampling – Sampling frame – Size of the sample – Sampling and Non Sampling Errors.

### **Unit III**

Collection of Data – Primary and Secondary Data – tools of Collection of Data – Questionnaire – Personal Interview – Interview – Schedule – Observation- Precautions to be taken while applying tools – Pilot study and pre- testing.

### **Unit IV**

Analysis and Interpretation of Data – Hypothesis – Formulation and testing of hypothesis – Methods of testing hypothesis – Parametric and non parametric tests, tests of significance – 't' test, 'F', test tests – Analysis of Variance – Application of Excel worksheet and SPSS package.

### **Unit IV**

Research Report – Types of reports – Target audience – Steps in drafting a Research Report – Contents of a research report – Title pages – Table of Contents – Body of the report – Appendices – Bibliography – Foot notes.

Note: The question paper should consist of 60% theory and 40% problem.

### **Reference Books:**

1. Research Methodology : methods and techniques C.R.Kothari, New Delhi Wiley Eastern Ltd.,
2. Research Methods in Commerce – Amarchand D, Emerald Publishers, Chennai.
3. Thesis and Assignment writing – Anderson J. Berry H.D & Poole, New Delhi, M. Wiley Eastern Limited.

4. Thanulingam N. Research methodology in social science, Coimbatore, Rainbow Publishers.
5. Kurien C.R. Research Methods in Economic and Social Sciences.

**COM8 C06 – ADVANCE CORPORATE ACCOUNTING**

**Unit – I**

Preparation of company final account – P & L Account – Statutory Requirements – Provision and Reserve as per company Act – Managerial Remuneration – Balance Sheet.

**Unit – II**

Acquisition – Amalgamation & Absorption – Reconstruction – Internal and External – Good will – Capital Reserve – purchase consideration.

**Unit – III**

Liquidation of companies – Mode of winding up - Statement of Affairs – Liquidators final Statement of Account – Liquidator's Remuneration.

**Unit – IV**

Final Statement – Banking companies – Legal Requirements – Form of P & L Account – Schedules – Financial Statement – Balance Sheet.

**Unit – V**

Account of Insurance companies – Life Insurance – General Insurance – Fire Marine – Revenue Account – Balance Sheet.

**Note:**

The question paper should consist 70% problem and 30% theory questions.

**Reference Books:**

1. Sukla. M.C and Crewal. T.S. Advance Accounts, New Delhi. S. Chand and Co.,  
2002.
2. Gupta. R.L nad Radhaswamy. M. Advance Account. New Delhi. Sultan

Chand, 2002.  
3. Jain S.P. and Narang.K.L. Advance Account . Ludhiana. Kalayani Publishers, 2002.

### **COMCA8E02 - PROGRAMMING IN C++**

- Class and Object
- Function Overloading
- Function with default Argument
- Constructor & Friend Function
- Inline Function
- Unary Operator Overloading
- Binary Operator Overloading
- Single Inheritance
- Multiple Inheritance
- Hybrid Inheritance

## **COM 8 S02 – HUMAN RESOURCE MANAGEMENT**

### **Unit I**

Human Resource Management- Objectives – Scope – Functions – Difference between Personnel Management and Human Resource Management- evolution and Development – Personnel policies and principles – Environment of HRM – Strategic HRM.

### **Unit II**

HRM planning – objectives – Need and Importance – Human Resource Planning Process – Job Analysis – Concepts – Techniques – Recruitment Process- Selection – Induction- Socialization.

### **Unit III**

Career Planning and Development – process – Career Management – Employee Training – Need and Importance – Steps in Training – Executive Development – Methods – Evaluation – Organization Development – Promotion – transfer - Demotion – Separation.

### **Unit IV**

Job Evaluation – Objectives – Procedures – Methods – Performance Appraisal – Wage and Salary Administration – Motivation – Workers participation in Management – Employee Discipline – Employee Grievance – Employee Welfare.

### **Unit V**

Industrial Relations – Concepts – Scope , Objectives and Importance – Industrial Relations in India – Industrial Disputes – Causes – Prevention – Trade Unions – Collective Bargaining – Personnel Research and Audit – Human Resource accounting – Human Resource Information System.

### **Reference Books:**

1. Khanka. S.S – Human Resource Management
2. Aswathappa. K. – Human Resource Management
3. Ivancovich – Human Resource Management
4. Bhiswajeet Bhatnayaak – Human Resource Management
5. Bernardin - Human Resource Management, An Experimental Approach.

## **COM8C07 - INTERNATIONAL TRADE**

### **Unit – I**

Theoretical foundations of International Business- Balance of Payments – International liquidity, International Economic Institutions – IMF, World Bank IFC,IDA,ADB.

### **Unit – II**

Structure of India's Foreign trade: Composition and direction- EXIM Bank- EXIM Policy of India- Regulation and Promotion of Foreign Trade.

### **Unit – III**

Foreign Direct Investment and Multinational Corporations – MNCs Culture – MNCs and LDCs – Joint Ventures- Regional Economic Integration: SAARC, ASEAN, EC, NAFTA, India and WTO- Functions and Policies- Intellectual Property Rights and Trade Related Investment Measures.

### **Unit – IV**

Foreign Exchange – Exchange Rate – Mechanism- Risk Management- Transfer of International Payments – Convertibility of Rupee-Current and Capital Accounts: Issues and Perceptions – Derivatives and Futures

### **Unit – V**

Foreign Investment Institutions: GDRs, ADRs, FIIs-their role in India Capital Market.

### **Reference Books:**

1. International Business, (Text & cases) Francis Cherunilam Prentice hall of India, New Delhi.
2. International Business, Justin Paul, Prentice Hall of India, New Delhi.
3. International Business, & Multinational Enterprises, Rovock & Simmonds, Richard D.Irwin Inc,
4. International Business, Dr.V.Balu, DB Jain College, Chennai
5. International Trade, M.L.Varma (Vikas Publishing House Pvt. Ltd) Professor, Indian Institute of Foreign Trade, Delhi.
6. Public Finance & International Trade, M.L.Jhingan Retired Deputy Director, Haryana, Vrinhda Publications Pvt. Ltd.



## **COM8C08 - SECURITY ANALYSIS AND PORTFOLIO MANAGEMENT**

### **Unit – I**

Nature and scope of security analysis: Risk- Meaning, Types, Risk Measurement, Risk Control, Valuation of Debt instrument - Equity valuation.

### **Unit- II**

Fundamental analysis - Economic analysis - Industry analysis - Company analysis and Technical Analysis.

### **Unit- III**

Derivatives Characteristics – Types – Hedging instruments- Forward and future contracts –options- Call and Put options – Write and Exotics options.

### **Unit- IV**

SWAP'S and Credit derivatives – Characteristics – Currency and interest rate, SWAP – Uses – Equity SWAP – Credit derivatives.

### **Unit- V**

Portfolio selection- Efficient Market- Hypothesis – Weak, Semi and Strong Market – Portfolio analysis – return and risk of a portfolio with more than two securities – diversification- Markowitz Risk – Return optimisation – Simple Sharps optimisation- Solution - Random Walk Theory and Dow Theory – CAPM.

**Note:** The question paper should consist of 70% theory and 30% problem.

### Reference Books:

1. Security Analysis and Portfolio Management by Donald E. Fischer, Ronald J. Jordan Prentice Hall of India Pvt. Ltd., New Delhi-110 001.
2. Investment Analysis and Portfolio Management by R.P. Rustagi. Sultan Chand & Sons Educational Publishers, New Delhi.
3. Investment Analysis and Portfolio Management by M. Ranganathan and R. Madhumathi Published by Pearson Education (Singapore) Pvt. Ltd., India Branch, 482 F.I.E. Patparganji Delhi- 110 092.
4. Security Analysis and Portfolio Management by S. Kevin PHI Learning Private Ltd. New Delhi – 110 001, 2008.
5. Investment Management by V.K. Bhalla & S.K. Tuteja. S. Chand & Company Ltd. Ram Nagar, New Delhi – 110 055.
6. Investment Management 13<sup>th</sup> Edition by V.K. Bhalla. S.Chand & Company Ltd. (AN ISO 9001:2000 COMPANY) ram Nagar New Delhi-110 005.

## **COM C10- ACCOUNTING FOR MANAGERIAL DECISION**

### **Unit – I**

Accounting for Business Decisions Concept, objectives nature, Scope – Distinction between Management Accounting & Financial accounting and management Accounting & Cost Accounting

### **Unit – II**

Marginal Costing – Cost Volume Profit Analysis and Break Even Analysis – Assumption of Break Even Point – Advantages and Disadvantages of Marginal Costing.

### **Unit – III**

Budget and Budgetary Control – Definition, Importance – Classification of Budgets: Purchase, Sales, Cash, Flexible, Zero- Base Budgeting.

### **Unit – IV**

Standard Costing – Variance analysis – Evaluation of Materials Variance – Labour Variance – Overhead variance – Sales Variance.

### **Unit – V**

Fund Flow Analysis – Fund Flow statement and income Statement comparison – Cash Flow Analysis – Preparation of cash flow statement - Ratio Analysis

### **Reference Books:**

1. Dr. Maheswari. S.N, management Accounting, New Delhi Sulthan Chand & Sons.
2. Mohamad and Goyal, Principles of Management Accounting, Agra S.N.Sahitya Bhavan.
3. Ramanathan & Grewal, Management Accounting, New Delhi. Hingorani. Sulthan Chand Sons.

## **COM 8C06 – DATABASE MANAGEMENT SYSTEM**

### **Unit – I**

Overview of Database system – File system Vs DBMS – Advantages of DBMS – relational Model – levels of abstraction – Data Independence – Transaction Management – Structure of DBMS – Database Design: Database design and ER model diagram – Entities, Attributes and Entity sets – relationship and Relationship set – features of ER model- Conceptual design with ER model – Case study: The Internet shop.

Chapter: 1.3-1.8, 2.1-2.5, 2.8.

### **Unit – II**

Relational Model: Introduction to Relational model – integrity constraints over relations – Enforcing Integrity Constraints – Querying Relational data – Logical Database Design: ER to Relational – Views – destroying/Altering tables and Views – Relational algebra – Relational Calculus.

Chapter: 3.1-3.7, 4.2, 4.3.

### **Unit – III**

SQL: Queries, Constraints and Triggers; Overview – Basic SQL Query – UNION, INTERSECT and EXCEPT – Nested Queries – Aggregate Operators – Null Values – Complex integrity constraints – Triggers and active Database – constrains versus triggers.

Chapter: 5.1-5.8, 5.9.2.

### **Unit-IV**

Scheme refinement and Normal forms: Introduction – Functional dependencies – Normal forms – Properties of decompositions – Normalization- Scheme Refinement in Database design – Other kind of Dependencies – Case study: The Internet shop. Security and authorization: Introduction – access control – Discretionary access control – security on Internet applications – Role of Database administrator.

Chapter: 19.1-19.9, 21.1-21.3, 21.5, 21.6.1.

### **Unit – V**

Data Ware housing – Data Ware housing – Views and decision support – Data mining: Introduction – Mining for rules – Tree structure rules – Clustering – Additional data mining tasks. Case study: Web search engine.

Chapter: 25.7, 25.8, 26.1, 26.3, 26.4, 26.5, 26.8, 27.4.

### **Text Book:**

1. Ramakrishna, Gehrke, “Database Management System”, TMGH, 3<sup>rd</sup> Edition, New Delhi – 2003.

### **Reference Book:**

1. A. Silberschatz, N.F. Korth, S. Sudarshan, “Database System Concepts”, 4<sup>th</sup> dition- Mc Graw Hill Higher Education, International Edition 2002.

## **COMCA8E03- VISUAL BASIC**

### **Unit- I**

Visual Basic 2005 – Variables, Arrays and Collections – Operations and Conditions Statement.

### **Unit – II**

Procedures and Functions – User Interface – Forms – Properties of Forms – Form Controls.

### **Unit – III**

Controls: Button Controls – Checkbox Control – Combo Box Control – Data Time Picker Control – Label Control – List Box Control – Picture Box Control – Radio Button Control – Rich Text Box Control – Text Box Control – Data Grid View Control.

### **Unit – IV**

Dialog Boxes – Color Dialog Control – Font Dialog Control – Open File Dialog Control – Save Dialog Control – MDI Application – Main Menu.

### **Unit – V**

Built-in Function – MsgBox Function – Input Box Function – String Functions – Date Functions – Working with Database – Data Report.

### **Text Books:**

1. Ivan Bayross, Sharanam Shah, “Visual Basic 2005 for Beginners”- Shroff  
Publishers and Distribution Pvt Ltd. I Edition 2006.

### **Reference Books:**

1. Steve Brown, Visual Basic, BPB Publication.
2. Gray Cornell, Visual Basic from the ground up, TMH Publications.